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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,848	01/16/2004	Michael Laurence Rooney	64162-030	5087

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McDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

ANTHONY, JOSEPH DAVID

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1796

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10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/757,848	ROONEY, MICHAEL LAURENCE	
	Examiner	Art Unit	
	Joseph D. Anthony	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-49 and 67-83 is/are pending in the application.
- 4a) Of the above claim(s) 39,40,43-45,48,49 and 67-83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-38,41,42,46 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/446,702.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 39-40, 43-45 and 48-49 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim. Note claims 67-83 were previously withdrawn as being drawn to a non-elected invention. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/16/07 arguing that the elected species of reducible organic compound (i.e. 2-methyl-anthraquinone) could be polymerized. While the examiner agrees with that, it is a moot point, since the species election requires the election of a single species, not its potential reaction products. Likewise, applicant argues that claims 48-49 read on the elected oxygen scavenging species of triphenylphosphite since these species can be bonded with a polymer. While the examiner agrees with that, it is a moot point, since the species election requires the election of a single species, not its potential reaction products. As such, the elected claims are deemed to be as followed: 35-38, 41-42 and 46-47. The Examiner also wants to acknowledge that Technology Center 1700 Director W. Gary Jones, has approved applicant's petition filed 7/20/07 for Supervisory Review of the Examiner statement of "totally false" in regards to the Examiner's arguments against applicant's traversal of the restriction. Although, the Examiner's statement of "totally false" cannot be deleted from the patent application file history, the Examiner's said statement is no longer to be viewed as the Patent Office's position

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Note: for the following prior-art rejection the broadest reasonable interpretation of applicant's claimed invention will be used as is required in standard patent examining practice. It must be pointed out the applicant's source of labile hydrogen or electrons, reducible organic compound, and oxygen scavenging component (see claims 46-47) all extensively overlap each other in their functional scope. A single component species could thus read on all three categories. As such, if a single component species meets the functional language limitation of the above categories then a rejection over it would be appropriate.

5. Claims 35-38, 41-42 and 46-47 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Monroe et al. U.S. Patent Number 4,942,112 or Cescon et al. U.S. Patent Number 3,615,454 or MacLachlan U.S. Patent Number 3,390,996.

Monroe et al. teach solid photopolymerizable compositions and photosensitive elements are provided that are useful in preparing optical elements, and especially

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holograms. The composition contains a polymeric binder, a liquid ethylenically unsaturated monomer, and a photoinitiator system. Typical compositions have a refractive index modulation of at least 0.005 when measured per the specified test. A specific suitable binder species disclosed by Monroe et al is **ethyl cellulose** which reads directly on applicant's elected species for the source of labile hydrogen or electrons, see column 9, lines 9-34 and especially lines 26-27. The preferred liquid ethylenically unsaturated monomers are acrylate derivatives and these derivatives also read directly on applicant's source of labile hydrogen or electrons as set forth in independent claim 1, see column 8, lines 12-68. The photoinitiator system part of Monroe et al's invention comprises both photoinitiators and sensitizers. A specifically disclosed species of photoinitiator is **2-methylantraquinone** which reads directly on applicant's elected species of reducible organic compound, see column 11, line 20 to column 12 line 30 and especially note column 11, lines 33-34. Discloses species of sensitizers are photosensitive dyes, such as methylene blue and many others, which also read on applicant's reducible organic compound, see column 12, lines 31-67. The compositions are activated by light in the visible, UV regions, by lasers etc, see column 11, lines 20-26. In addition, Monroe et al's photopolymerizable compositions can contain thermal stabilizers, such as hydroquinone and its derivatives, which read directly on applicant's oxygen scavenging component of claims 46-47, see column 13, line 63 to column 14, line 9. Monroe et al's photopolymerizable compositions can also contain hydrogen donor compounds useful as chain transfer agents, which also read directly on applicant's claimed source of labile hydrogen or electrons, see column 14,

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lines 10-19. Applicant's claims are thus deemed to be clearly anticipated over the disclosure of the reference. In the alternative, this rejection is being made by way of obviousness only because it seems that the reference does not explicitly suggest using the disclosed photopolymerizable compositions as an indicator of seal breakage or incomplete seal formation in a package as set forth in the preamble of applicant's independent claim 1. Such preamble claim language is properly view as intended use language and is thus given little patentable weight since the elected claims are composition type claims and not method of use type claims.

Cescon et al. teach a multiple irradiation method which comprises providing a radiation-sensitive material comprising (1) a radiation-sensitive, multicomponent, intermolecularly reactive imageable composition whose imaging reaction is subject to diffusion control, mixed with (2) a radiation-sensitive polymerizable composition, imaging by irradiating with imaging radiation under imaging conditions, and deactivating the imageable composition in the unexposed areas by irradiating with the polymerizing radiation under nonimaging conditions, said polymerization being effective to rigidify the material so as to render the imaging reaction diffusion-controlled and thereby prevent the imaging components from diffusing together and reacting. In the imaging step it is only necessary that the imaging reaction occur before the polymerization reaction can deactivate the system. In the deactivation (or fixing) step it is only necessary that the deactivating radiation be applied under conditions ineffective for imaging. Imagewise exposing the composition first to the imaging radiation then to the deactivating radiation produces a negative image. On the other hand, imagewise

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exposing the composition first to the deactivating radiation creates a latent image, which is developed by exposing the unirradiated areas to the imaging radiation, see abstract.

The radiation sensitive multi-component intermolecular reactive imagable composition comprises a photoinitiators and/or color generators such as indigoid dyes which read directly on applicant's claimed reducible organic compounds. The disclosed polymerizable monomers used in the compositions are preferable ester type monomers which read directly on applicant's claimed source of labile hydrogen or electrons.

Additional components can be added to the composition which read on applicant's oxygen scavengers of claims 46-47, see column 10, lines line 27 to column 13, line 60, and column 18, line 27 to column 20, line 25. The irradiation comes from both visible and heat radiation. Applicant's claims are thus deemed to be clearly anticipated over the disclosure of the reference. In the alternative, this rejection is being made by way of obviousness only because it seems that the reference does not explicitly suggest using the disclosed photopolymerizable compositions as an indicator of seal breakage or incomplete seal formation in a package as set forth in the preamble of applicant's independent claim 1. Such preamble claim language is properly view as intended use language and is thus given little patentable weight since the elected claims are composition type claims and not method of use type claims.

MacLachlan teaches a composition which forms color when irradiated with light of one wavelength and becomes relatively insensitive to that light when irradiated with light of a different wavelength. The composition comprises (a) an organic nitrogen-containing color-generator, such as a leuco dye, (b) a photooxidant, such as a hexaaryl-

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biimidazole, which upon being irradiated oxidizes the color- gelierator to its colored form, (e) a redox couple of (1) a reductant, and (2) an oxidant which when activated by light reacts with the reductant forming a reducing agent which reacts with the photo-oxidant to deactivate it. The composition can be coated on a substrate such as plastic, 25 paper or metal, see abstract, columns 4-10, examples and claims. Applicant's claims are thus deemed to be clearly anticipated over the disclosure of the reference since the reference clearly teaches the combination of components that function as a source of labile hydrogen or electron, a reducible organic compound and optionally an oxygen scavenger. In the alternative, this rejection is being made by way of obviousness only because it seems that the reference does not explicitly suggest using the disclosed photopolymerizable compositions as an indicator of seal breakage or incomplete seal formation in a package as set forth in the preamble of applicant's independent claim 1. Such preamble claim language is properly view as intended use language and is thus given little patentable weight since the elected claims are composition type claims and not method of use type claims.

Prior-Art Cited But Not Applied

6. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

10/11/07